

Listing of the Claims

1. (original) A method for concealing errors detected in an input audio bit stream, the digital audio bit stream configured as a series of packets, said method comprising the steps of:

detecting a first beat and a subsequent plurality of beats in the audio bit stream;

defining a first inter-beat interval extending between said first beat and a $(k+1)^{\text{th}}$ subsequent beat;

storing at least a portion of the audio bit stream occurring within said first inter-beat interval;

A4 detecting an erroneous audio segment occurring in a second inter-beat interval extending between said $(k+1)^{\text{th}}$ beat and a $(2k+1)^{\text{th}}$ subsequent beat; and

replacing at least a first part of said erroneous audio segment with a corresponding part of said stored digital audio bit stream portion.

2. (original) A method as in claim 1 wherein 'k' is an integer greater than or equal to 2.

3. (original) A method as in claim 1 wherein said stored audio bit stream portion includes at least one packet positioned on at least one said beat.

4. (original) A method as in claim 1 wherein said step of detecting a first beat comprises a step of computing the variance of the audio bit stream using decoded IMDCT coefficients.

5. (original) A method as in claim 1 wherein said step of detecting a first beat comprises the step of utilizing a window-switching pattern.

6. (original) A method as in claim 1 wherein said step of detecting a first beat comprises a step of computing the envelope of the audio bit stream using decoded IMDCT coefficients.

7. (original) A method as in claim 1 wherein said step of detecting a first beat comprises the steps of computing the variance of the audio bit stream using decoded IMDCT coefficients and utilizing a window-switching pattern.

8. (original) A method as in claim 1 wherein said step of storing at least a portion of the audio bit stream includes a step of storing said portion in a circular first-in first-out (FIFO) buffer.

9. (original) A method for error concealment in a process of digital audio streaming, said method comprising the steps of:

providing a bitstream;

detecting at least two beats extracted from said bitstream, said beats extracted from a signal having repetitive sequences; and

determining an inter-beat interval between said at least two beats.

10. (original) A method as in claim 9 wherein said signal having repetitive sequences comprises at least one signal from the group consisting of a music signal and an audio signal.

11. (original) A method as in claim 9 wherein said signal having repetitive sequences includes an error pattern.

12. (original) A method as in claim 9 wherein said signal having repetitive sequences includes a packet loss from an IP network and a burst error from a wireless channel.

13. (original) A method as in claim 9 further comprising the step of decoding at least a portion of said signal having repetitive sequences.

14. (original) A method as in claim 9 wherein said signal having repetitive sequences comprises at least one element from the group consisting of a rhythm element, a beat element, and a bar element.

15. (original) A method as in claim 11 further comprising the step of replacing said error pattern with music content.

16. (original) A method as in claim 9 further comprising the step of replacing one said beat with another said beat from a preceding bar.

17. (currently amended) A method for error concealment in a process of digital audio streaming in a wireless terminal, said method comprising the step of storing two consecutive inter-beat intervals of the compressed audio ~~bitstream~~ bitstream.

18. (currently amended) A ~~memory for error concealment in a process of digital audio streaming in a~~ wireless terminal configured for error concealment of streamed digital audio, said memory comprising:

means for detecting musical beats and determining intervals between said beats; and

~~storing~~ means for storing a signal history of musical beats of two consecutive inter-beat intervals of the compressed audio bitstream.